

Funding disclaimer: This study was prepared under contract with the Washington State Department of Commerce, with financial support from the Office of Local Defense Community Cooperation. The content reflects the views of the Washington State Department of Commerce and does not necessarily reflect the views of the Department of Defense.

# 2021 Compatible Energy Siting Assessment (CESA) Prototype map tool for compatible energy siting

GIS-based consultation-support application

Benjamin Serr, Eastern Regional Manager

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GROWTH MANAGEMENT SERVICES

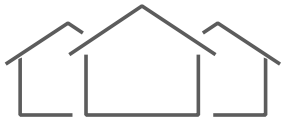
12/16/2021



Washington State  
Department of  
**Commerce**

# T We strengthen communities

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**HOUSING  
HOMELESSNESS**



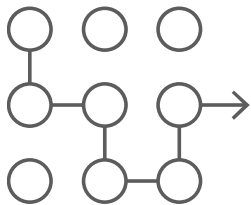
**INFRASTRUCTURE**



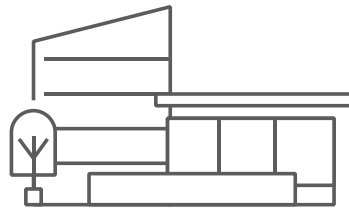
**BUSINESS  
ASSISTANCE**



**ENERGY**



**PLANNING**



**COMMUNITY FACILITIES**



**CRIME VICTIMS &  
PUBLIC SAFETY**



**COMMUNITY  
SERVICES**

# Compatible Energy Siting Assessment Grant deliverables and status

**GRANT PURPOSE:** Promote early and ongoing civilian-military consultation for compatible energy siting in Washington State.

**FEDERAL FUNDING:** Department of Defense (DOD), Office of Local Defense Community Cooperation (OLDCC)

**STATE LEAD:** Washington State Department of Commerce (Commerce)

**STATE PARTNER:** Utilities and Transportation Commission (UTC) and Washington State Energy Facility Site Evaluation Council (EFSEC)



# Compatible Energy Siting Assessment (CESA) 2021 CESA prototype map tool

## Purpose

### Align interests in project siting:

- Promote civilian-military compatibility through “early and ongoing consultation.”
- Provide developers with multiple non-military layers and consultation guidance to help streamline permitting.



# Compatible Energy Siting Assessment (CESA)

## 2021 CESA prototype map tool

### Purpose

#### Align interests in project siting:

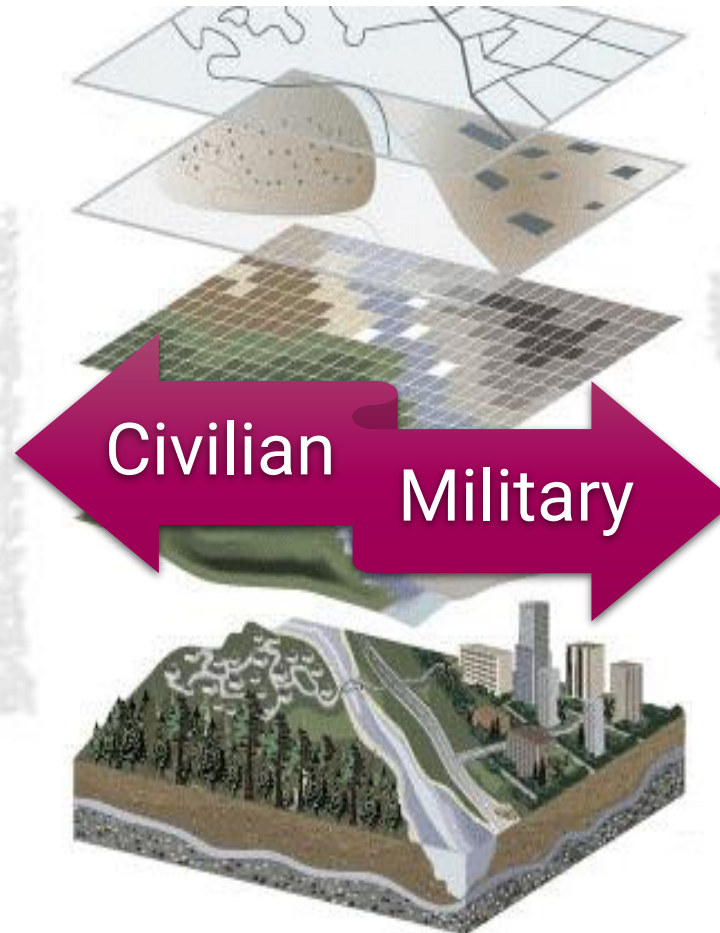
- Promote civilian-military compatibility through “early and ongoing consultation.”
- Provide developers with multiple non-military layers and consultation guidance to help streamline permitting.



Civilian-military compatibility needs resemble other issues in siting.  
Best practice: Consultation tools address multi-disciplinary needs.

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**Sensitive to cumulative loss**  
Need: long-term protection of  
critical habitat and resources.



**Sensitive to cumulative loss**  
Need: Long-term protection of  
military's ability to operate and  
safely test/train personnel.

Image source: <https://www.esri.com/arcgis-blog/wp-content/uploads/2018/02/05-fig-5-4-v2.png>

# Grant deliverables and status

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## GIS-based prototype map tool

Streamline compatible energy siting through ***early and ongoing consultation***.

### Producers:

Timmons Group (contractor)

## Mapping tool report

Scope minimum costs, activities, and staffing for implementation.

### Producers:

Timmons Group (contractor)

## CESA needs report

**(Spring 2022)**

Assess civilian-military needs in energy siting.

### Producers:

Commerce and EFSEC

- ☒ The prototype map tool is done.
- ☒ Implementation needs are scoped.
- ☐ Civilian-military needs report is pending.

# Compatible Energy Siting Assessment Program findings

What we heard and our lessons learned for the CESA prototype map tool.



# Snapshot: Project engagement

## Energy developers

A&R Solar  
Avangrid  
Renewable NW  
Enel Green Power  
Invenergy

## Non-profit organizations

Audubon Society  
American Farmland Trust  
Clean Energy Institute at UW  
Clean Energy Transition Institute  
Clean Tech Alliance  
Climate Solutions  
Coalition of Eastside Neighborhoods  
for Sensible Energy  
Conservation Biology Institute  
NW Energy Coalition  
Puget Sound Regional Council  
Sierra Club  
Trust for Public Lands  
Washington Environmental Council  
WECC/NW Energy Coalition

## Utilities

Avista Utilities  
Bonneville Power Administration  
Clark Public Utilities  
PacifiCorp  
Pend Oreille County PUD  
Puget Sound Energy  
WA PUD Association

## Federal agencies

Federal Aviation Administration  
United States Forest Services  
U.S. Bureau of Land Management  
Bureau of Ocean Energy Management

## Military

Department of Defense | Air Force, Army,  
Homeland Security | Coast Guard  
Office of the Secretary of Defense

## Other states

Arizona, California, New Mexico, Texas,  
Utah

## Washington counties

Benton, Community Development Department  
Columbia, Planning and Building Department  
Garfield, Public Works Department  
Grant, Development Services Department  
Kittitas, Community Development Department  
Klickitat, Planning Department  
Pacific, Community Development Department  
Thurston, Community Planning & Economic  
Development Department  
Walla Walla, Community Development Department  
Yakima, Community Development Department

## Washington state agencies

Archaeology and Historic Preservation  
Office of the Chief Information Officer  
Department of Agriculture  
Department of Commerce  
Department of Transportation Aviation  
Department of Ecology  
Department of Fish and Wildlife  
Department of Natural Resources  
DNR | Geological Survey

**People from these organizations joined one or more focus groups.**

**The list omits 400+ whom we reached by emails, surveys, conferences, user testing, and interviews.**

# Findings

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**Consultation support is best practice.**

**“Early enough” consultation is a persistent gap.**

**Data analytics would not replace consultation.**

## **Consultation versus screening.**

Tools defining site (un)suitability seem ideal, but concerns abound.

Tools that report on environmental quality or resource value also seem ideal, but:

**More sophisticated tools need more scoping, outreach, and research to do well.**

**Each added function makes the tool harder to define, build, verify, update, and afford.**

# Recommendation: Focus on consultation support.

**Even a highly dynamic tool tool would not replace consultation.**

**So CESA's siting tool should help users reach contacts and navigate consultation.**



10/11/2019 2:29 PM

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CESA Site Consultation Report

**IMPORTANT NOTICE:** The CESA Site Consultation Report is under development and should NOT be used for siting or decision-making purposes. This report may not contain the most current information for features displayed, including military training, testing and operating areas where military operations are suggested. This is only a sample tool and is NOT authorized for official use.

**Purpose of this Report**

The State of Washington is committed to increasing the supply of renewable energy. We seek to support developers in identifying suitable sites for energy development which present the least conflict with other resource needs. Consultation early in a project is important for well-informed planning. This mapping tool is designed to promote early and ongoing communication between renewable energy developers and governmental entities (cities, military, and tribal) in support of successful site selection for new facilities.

This tool is designed to support recommended coordination on siting needs and for help navigating state and federal regulations including the State Environmental Policy Act (SEPA) [RCW 43.02C](#), [WAC 201-20-020](#). In particular, we urge developers to consult with the military as early as possible in the initial site identification process, well before the application phase. Early consultation reduces risk of project delays or impacts to military testing, training and operating areas. Explore the following statistics for additional information:

- [RCW 43.02C.020](#) Application for a permit to site an energy plant or alternative energy resource -- Written notice to United States Department of Defense.
- [RCW 43.02A.020](#) and [WAC 201-20-020](#) Land use compatibility with military installations.

**Selected Area of Interest**

Project Name: No Project Name Provided 40.00 acres

Project Type: No Project Types Selected

Local Government Jurisdiction(s): Whitman County

Project Description or Comments:

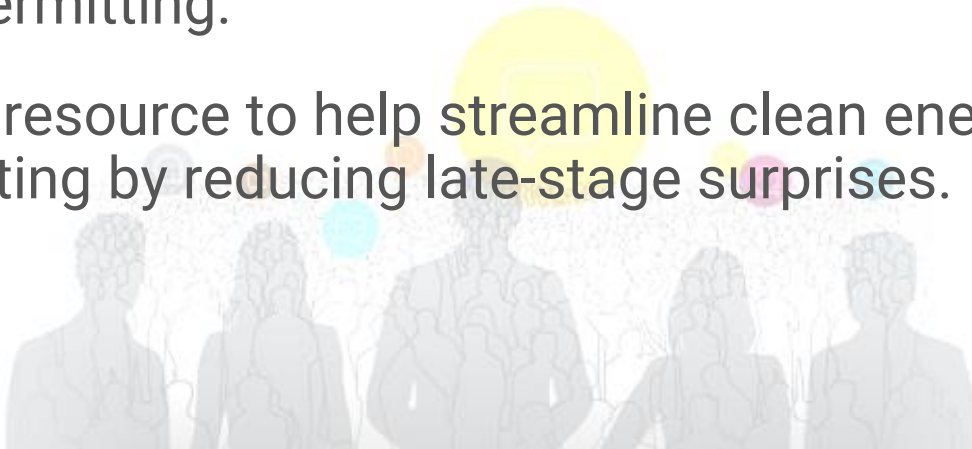


**Success**

10

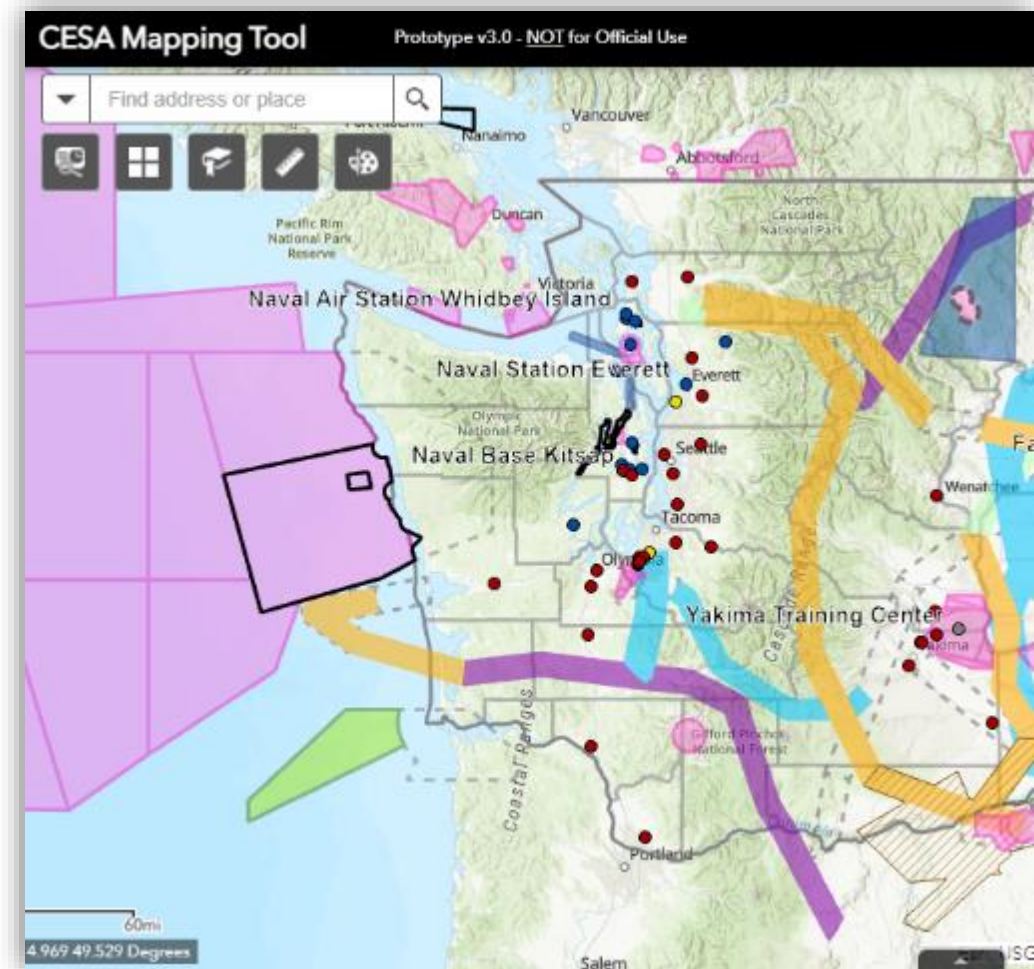
# The 2021 CESA Prototype is...

- [A map-based tool](#) to give developers and permit-review agencies site-specific consultation guidance.
- An automated report tool with contact information for the military and other governmental entities involved in permitting.
- A resource to help streamline clean energy siting by reducing late-stage surprises.



# Compatible Energy Siting Assessment

- ✓ **Opportunity**—to materially address a growing need for energy solutions.
- ✓ **Prototype map application**—a functional GIS-based consultation support tool.
- ✓ **Clear lessons to share**—data on similar tools and stakeholder input.
- ✓ **Implementation report**—recommendations and baseline cost estimates.
- ✓ **A strong start**—initial reception is positive.



# Compatible Energy Siting Assessment Implementation scoping

## Implementation scenario:

These are the basic assumptions, phases, needs, and starting costs if the current CESA prototype lives on in a similar form.



# Scoping an “as-is” live version of the CESA tool

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## 2 phases:

Short-term final  
design and  
“launch”

Long-term  
operation and  
maintenance  
“O&M”

### State staffing needs for both phases

- **Technical/Information Services:** Final app design, then ongoing maintenance.
- **Outreach Specialist:** Outreach for app design, then periodically to update consultation guidance.

# Scoping an “as-is” live version of the CESA tool

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## Top 5 coordination and outreach activities to for a launch phase:

1. **Interagency coordination** to identify a host for the “live” version and set a basic scope.
2. **Designate a project lead/team**, advisors, and an approach to compliment related state projects.
3. **Conduct joint public outreach** to finalize tool design and test with primary users.
4. **Determine offshore mapping needs** based on further research and robust outreach.
5. **Adopt an ongoing maintenance plan** to contacts and consultation guidance accurate.

“Launch” phase outreach is a **significant cost variable**, depending on engagement approach.

# Scoping an “as-is” live version of the CESA tool

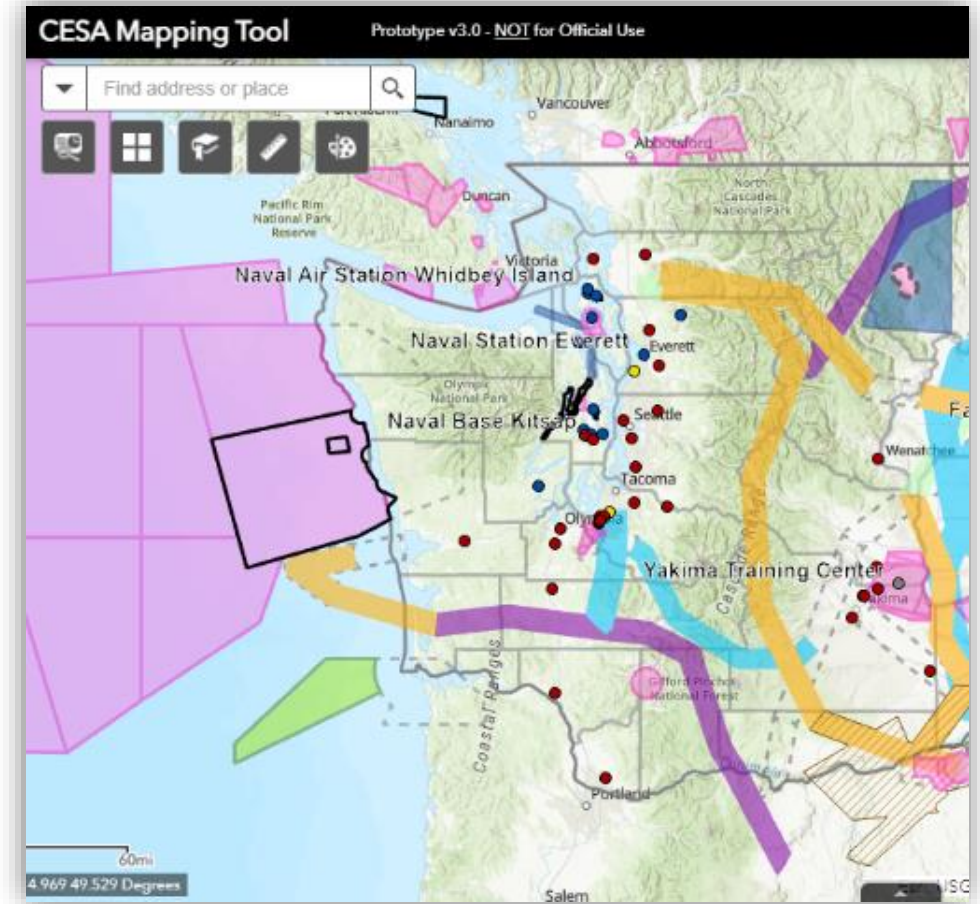
## 1. Launch Phase: *Final design and implementation*

- **Duration:** Varies based on outreach needs.
- **Person days:** 103 (8 hours/day)
- **Estimated base cost:** \$51,556

## 2. Operation & Maintenance Phase: *Long-term*

- **Person days:** 193 (8 hours/day)
- **Cost:** \$93,489 (Year 1)

*Estimates assume state staffing and a minimum outreach initiative for a consultation-support tool that neither prescribes nor prohibits development based on location.*



# DEMO:

## **2021 CESA Prototype Map Tool**

**A GIS-based consultation-support application**

<https://cesa-timmons-group.hub.arcgis.com>



# Compatible Energy Siting Assessment (CESA) Site Consultation Map Tool Prototype

Promoting early and ongoing civilian and military coordination



Washington State  
Department of  
Commerce

How to get started in 4 easy steps!

1

## Learn

Learn about the Prototype.

2

## Launch the Tool

Launch the tool to start exploring or to screen a specific site to see potential Consultation Areas that may impact your next project.

3

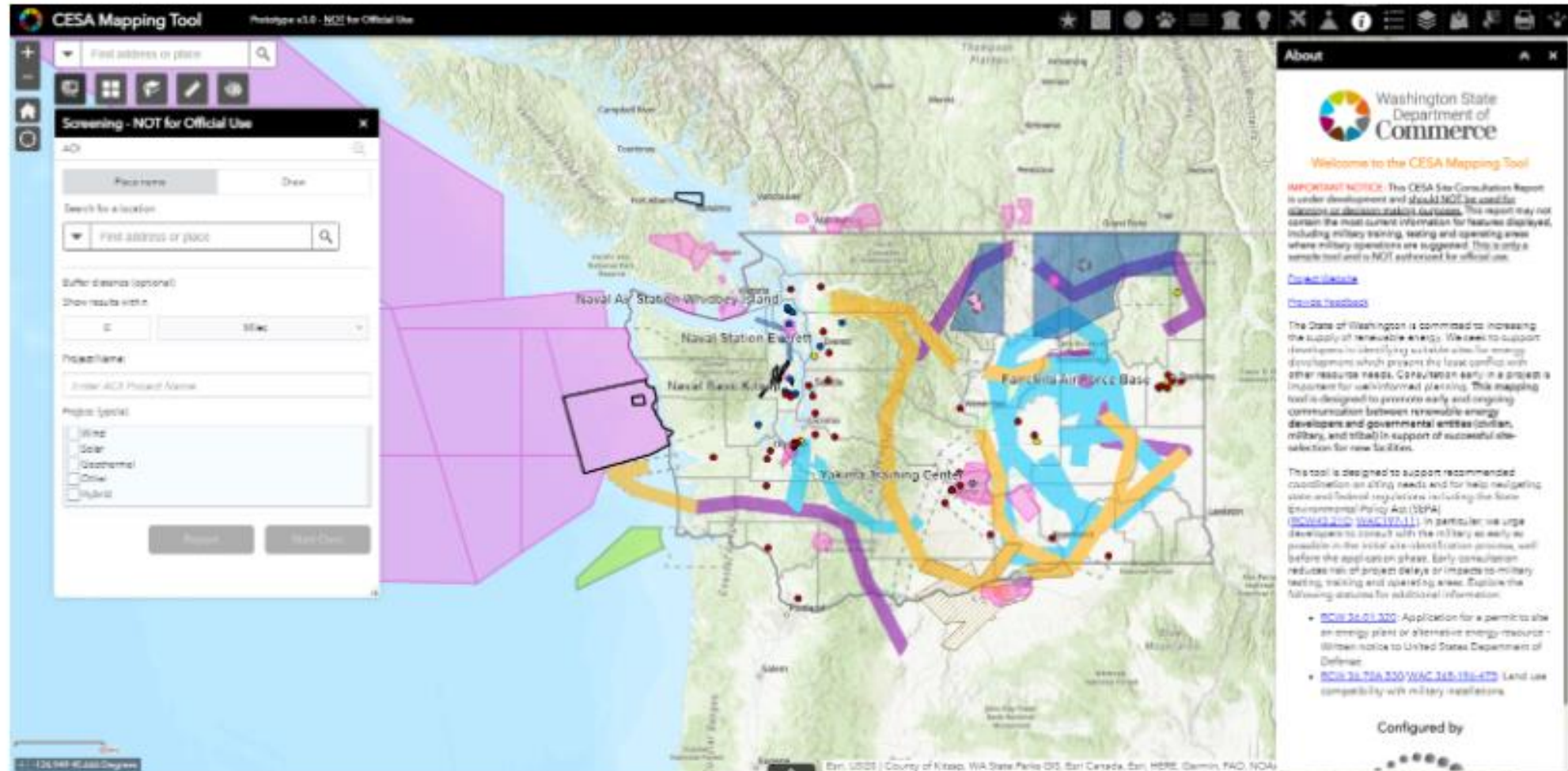
## Explore the Data

Explore our authoritative database of identified datasets supplied by participating organizations.

4

## Important Contacts

Know who to contact across the State at various agencies. Contact us with any questions.



Launch CESA Prototype v3.0



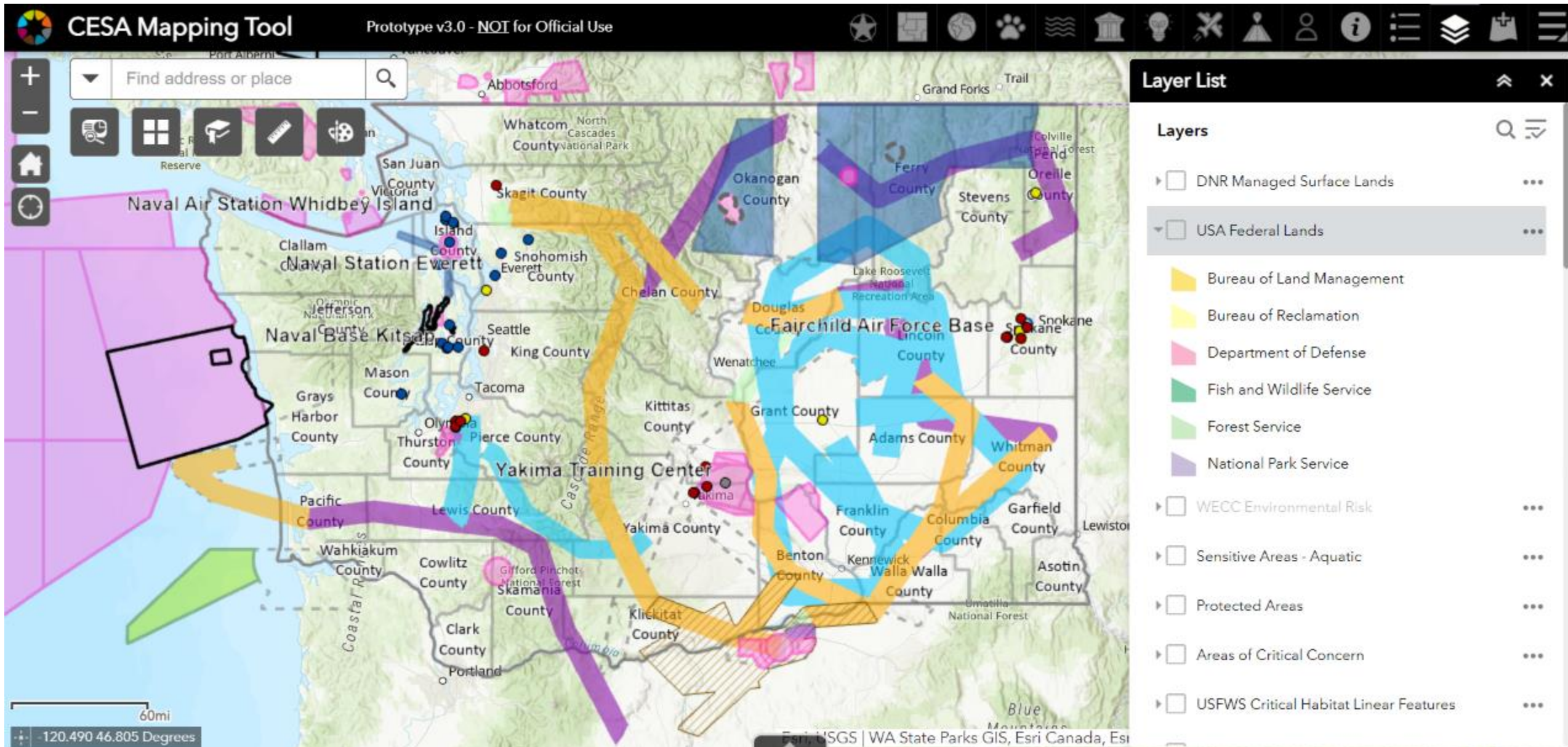
## Welcome to the Washington State CESA Mapping Tool

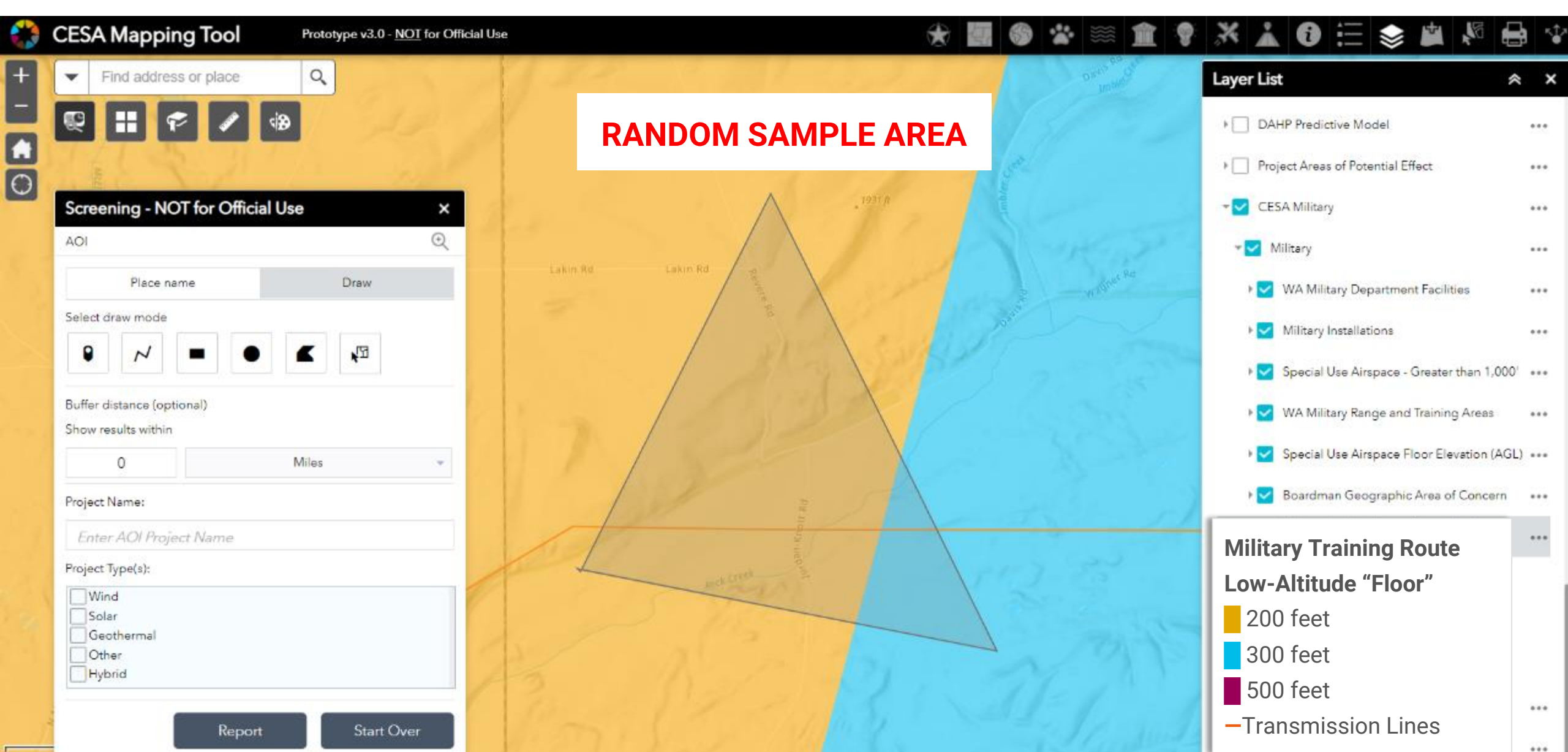
**IMPORTANT NOTICE: This CESA Site Consultation Report is under development and should NOT be used for planning or decision-making purposes. This report may not contain the most current information for features displayed, including military training, testing and operating areas where military operations are suggested. This is only a sample tool and is NOT authorized for official use.**

**By continuing, I acknowledge that data in this sample uses unofficial data that is NOT authorized for official use.**

☐ I agree to the above terms and conditions

OK





+

-

Home

Refresh

Find address or place

Q

Map

Layers

Measure

Draw

Full Screen

Screening - NOT for Official Use

AOI

Q

Place name

Draw

Select draw mode

Pin

Line

Polygon

Circle

Area

Buffer

Buffer distance (optional)

Show results within

0

Miles

Project Name:

Enter AOI Project Name

Project Type(s):

☐ Wind
 ☐ Solar
 ☐ Geothermal
 ☐ Other
 ☐ Hybrid

Report

Start Over

Users select a site by drawing an area or retrieving an address.  
 Users can include a buffer area around their selected site.  
 Capability to upload project site data is desirable (TBD)

Place name

Draw

Select draw mode

Pin

Line

Polygon

Circle

Area

Buffer

Place name

Draw

Search for a location

Find address or place

Q

Buffer distance (optional)

Show results within

0

Miles

Find address or place

Screening - NOT for Official Use

AOI

Place name Draw

Select draw mode

Buffer distance (optional)

Show results within

0 Miles

Project Name:

Enter AOI Project Name

Project Type(s):

☐ Wind

☐ Solar

☐ Geothermal

☐ Other

☐ Hybrid

Report Start Over

## OPTIONAL FEATURES

Users can indicate project-specific features for inclusion in the automated report.

Name the area of interest (AOI)  
Or specify project name

Include form of energy technology

Click "Report" to access  
consultation guidance that is  
site-specific.

CESA Mapping Tool

Prototype v3.0 - **NOT** for Official Use

Find address or place

Users can print to PDF

Screening - NOT for Official Use

Report

Back

Area : 846.66 acres

CESA Consultation Areas

(8)

Tribal Reservation and Trust Lands

(0)

County Boundary

(1)

Special Use Airspace - Greater than 1,000'

(0)

WA Military Range and Training Areas

(0)

Special Use Airspace Floor Elevation (AGL)

(0)

Boardman Geographic Area of Concern

(0)

Military Training Route Floor Elevation (AGL)

(3)

Washington State  
Department of  
Commerce

SAMPLE  
REPORT

CESA Site Consultation Report

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This tool is designed to support recommended coordination on siting needs and for help navigating state and federal regulations including the State Environmental Policy Act (SEPA) ([RCW 43.21C](#); [WAC 197-11](#)). In particular, we urge developers to consult with the military as early as possible in the initial site-identification process, well before the application phase. Early consultation reduces risk of project delays or impacts to military testing, training and operating areas. Explore the following statutes for additional information:

- [RCW 36.01.320](#): Application for a permit to site an energy plant or alternative energy resource – Written notice to United States Department of Defense.
- [RCW 36.70A.530/WAC 365-196-475](#): Land use compatibility with military installations.

Selected Area of Interest

Project Name: No Project Name Provided

Project Type: No Project Types Selected

Local Government Jurisdiction(s): Whitman County

Project Description or Comments:

Enter comments here

Area : 846.66 acres

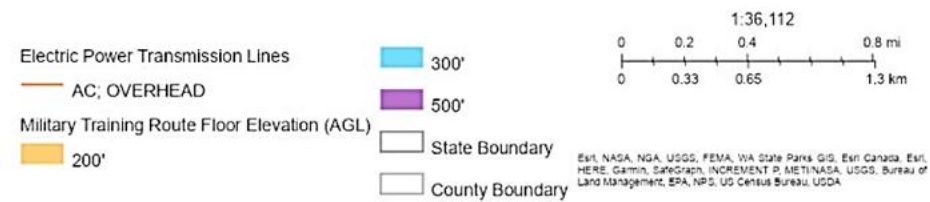
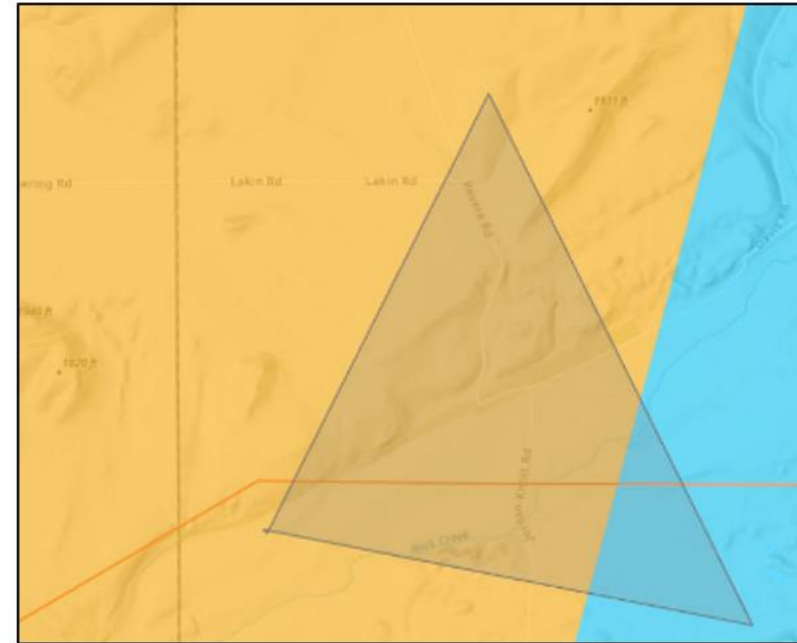
Page 1 of the report provides context, with reference to consultation-related regulations.

WASHINGTON STATE DEPARTMENT OF COMMERCE

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Page 2  
Full-page site map.

**SAMPLE  
REPORT**



CESA Site Consultation Report

## Pages 3-4: Contact information and other context for users.

### Civilian-military consultation:

### Other governmental consultation:

#### Military Consultation Required

##### Summary of Relevant Military Training, Operating, and Testing Areas:

Features	Count	Area (Acres)
Military Training Route Floor Elevation (AGL)	3	2,418

##### Military areas within Area of Interest and Associated Points of Contact:

Feature Name	Contact	Contact Phone	Contact Email
U.S. Navy	Kim Peacher	(360) 930-4085	kimberly.n.peacher.civ@us.navy.mil
U.S. Air Force	Leroy Alvarez	(253) 982-4057	leroy.alvarez.1@us.af.mil

##### Definitions:

**Military Training Route (MTR)** – is a joint-designation by the FAA and the US Department of Defense (DOD). MTRs are mutually developed for use by the military for the purpose of conducting low-altitude, high-speed training. Airspace of defined vertical and lateral dimensions established for the conduct of military training at airspeeds in excess of 250 knots indicated airspeed. [\[Source\]](#)

**Special Use Airspace (SUA)** – a designation for airspace in which certain activities must be confined, or where limitations may be imposed on aircraft operations that are not part of those activities. Certain special use airspace areas can create limitations on the mixed use of airspace. SUA or SAO consists of prohibited, restricted, warning, military operations, and alert areas. [\[Source\]](#)

**National Security Area (NSA)** – consists of airspace of defined vertical and lateral dimensions established at locations where there is a requirement for increased security of ground facilities. Pilots are requested to voluntarily avoid flying through an NSA. When it is necessary to provide a greater level of security, flight in an NSA may be temporarily prohibited. [\[Source\]](#)

DoD-Approved **Boardman Geographical Areas of Concern** maps show specific mission areas where wind development would present an adverse impact to military operations. The Boardman GAOC is identified due to possible effects upon two main DoD military missions. The Naval Weapons Systems Training Facility at Boardman and its associated airspace are the U.S. Navy's primary resource for all airborne electronic attack aircraft air combat maneuver training. This training includes low level aircraft operations. Tall structures, such as wind turbines and electrical transmission lines, constructed under Restricted Airspace (R-5701) and Military Training Routes will prevent the U.S. Navy from fulfilling the training mission. [\[Source\]](#)

#### Other Consultation Recommended

Virtually all projects that require approval in the State of Washington will need to be reviewed at some point by these agencies. The sooner consultation begins, the easier it is to avoid potential obstacles and prevent later delays in permitting.

**SAMPLE  
REPORT**

##### These agencies have relevant statewide interests:

Agency	Contact	Contact Phone	Contact Email
Washington Department of Archaeology and Historic Preservation	Morgan McLemore	(360) 586-3065	morgan.mclemore@dahp.wa.gov
Washington Department of Fish & Wildlife	Keith Folkerts	(360) 902-2200	keith.folkerts@dfw.wa.gov
Washington State Department of Ecology	Casey Dennehy	(360) 407-6000	cden461@ecy.wa.gov

##### Additional agencies to consult with based on your specific area of interest:

Agency	Contact	Contact Phone	Contact Email
Bureau of Land Management	Lenore Heppler	(503) 808-6154	lheppler@blm.gov
Washington State Department of Natural Resources - Clean Energy Program	Dever Haffner-ratliffe	(360) 742-4133	mlcep@dnr.wa.gov

##### Tribal Consultation

Based on information provided by the Washington State Department of Transportation regarding Tribal Reservation and Trust Lands in Washington State, your area of interest may coincide with areas of interest for the tribal nations listed below. **Please note:** Other tribal communities may have interests in your selected area and you are responsible for consulting with all relevant tribal nations. Please use this list as an initial guide to tribal consultation:

**Tribal-related data for the area you selected may be limited or unavailable within this application. We urge you to reach out to all tribes currently or historically inhabiting your area of interest since GIS data regarding tribal lands are known to be incomplete.**

# Thank you!

Dave Andersen

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Department of  
**Commerce**

[www.commerce.wa.gov](http://www.commerce.wa.gov)



2021 CESA Map Tool Prototype:  
<https://cesa-timmons-group.hub.arcgis.com/>